**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings, of claims in the application:

**Listing of Claims:**

1-23. ***(Canceled)***

24. ***(Original)*** A particle comprising a base having a shape of an inverted truncated right circular cone, wherein diameter of the inverted truncated right circular cone ranges from 1 nm to 100 microns, height of the inverted truncated right circular cone ranges from 5 nm to 1000 microns, and aspect ratio of the inverted truncated right circular cone ranges from 5 to 5000.

25. ***(Original)*** A particle according to claim 24, wherein the diameter ranges from 10 nm to 10 microns.

26. ***(Original)*** A particle according to claim 25, wherein the diameter ranges from 100 nm to 1 micron.

27. ***(Original)*** A particle according to claim 26, wherein height of the inverted truncated right circular cone ranges from 50 nm to 1000 microns.

28. ***(Original)*** A particle according to claim 27, wherein height of the inverted truncated right circular cone ranges from 5 nm to 1000 microns.

29. ***(Original)*** A particle according to claim 24, additionally comprising an at least partly semispherical head disposed atop the base.

30. ***(Original)*** A particle according to claim 24, additionally comprising a layered internal structure.

31. ***(Original)*** A particle according to claim 24, wherein said base is at least partly hollow.

32. ***(Original)*** A particle according to claim 24, comprising a material capable of

forming one of a planar array, a two-dimensional lattice, or a nanotube.

33. ***(Original)*** A particle according to claim 32, wherein said material comprises carbon, hexagonal BN; $B_xC_y$, where x and y are independently 0, 1, 2, 3 or 4; $B_xC_yN_z$ where x, y and z are independently 0, 1, 2, 3 or 4; a dichalcogenide; a metal oxide; a metal boride; or a combination thereof.

34. ***(Original)*** A particle according to claim 33, comprising carbon.

35. ***(Original)*** A powder comprising particles having a shape of an inverted truncated right circular cone with a rounded top, wherein diameter of the cone ranges from 1 nm to 100 microns and height of the cone ranges from 5 nm to 1000 microns.

36. ***(Original)*** A powder according to claim 34, wherein the diameter ranges from 10 nm to 10 microns.

37. ***(Original)*** A powder according to claim 35, wherein the diameter ranges from 100 nm to 1 micron.

38. ***(Original)*** A powder according to claim 34, additionally comprising a layered internal structure.

39. ***(Original)*** A powder according to claim 34, wherein said particles are at least partly hollow.

40. ***(Original)*** A powder according to claim 34, comprising carbon, hexagonal BN; $B_xC_y$, where x and y are independently 0, 1, 2, 3 or 4; $B_xC_yN_z$ where x, y and z are independently 0, 1, 2, 3 or 4; a dichalcogenide; a metal oxide; a metal boride; or a combination thereof.

41. ***(Original)*** A powder according to claim 40, comprising $MoS_2$, $WS_2$, $V_2O_5$, $MoO_3$, $MgB_2$ or a combination thereof.

42. ***(Original)*** A particle according to claim 34, comprising $MoS_2$, $WS_2$, $V_2O_5$, $MoO_3$, $MgB_2$ or a combination thereof.